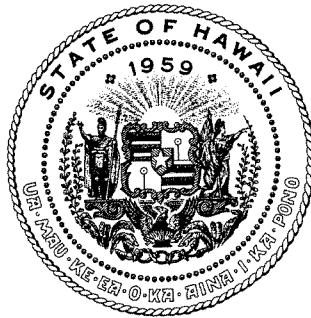


Report to the Twenty-Fourth Legislature
Regular Session of 2007

REQUESTING THE DEPARTMENT OF LAND AND NATURAL RESOURCES
TO RECOMMEND SOLUTIONS TO ABATE AND PREVENT
THE ACCUMULATION OF SEDIMENT AT
WAILOA SMALL BOAT HARBOR AND ALONG HILO BAYFRONT



Prepared by the
Department of Land and Natural Resources
State of Hawaii

In response to
Senate Concurrent Resolution 130, Senate Draft 1
Regular Session of 2006

November 2006

REQUESTING THE DEPARTMENT OF LAND AND NATURAL RESOURCES
TO RECOMMEND SOLUTIONS TO ABATE AND PREVENT
THE ACCUMULATION OF SEDIMENT AT
WAILOA SMALL BOAT HARBOR AND ALONG HILO BAYFRONT

Introduction

Senate Concurrent Resolution 130, Senate Draft 1 (SCR130 SD1), adopted by the 2006 Legislature, requests the Department of Land and Natural Resources (DLNR) to study and recommend solutions to abate and prevent the accumulation of sediment at Wailoa Small Boat Harbor and along the Hilo Bayfront on the Island of Hawaii. Further, SCR130 SD1 requests DLNR consult with interested and resourceful parties, including but not limited to the Department of Transportation; Department of Health; United States (U.S.) Department of Agriculture; U.S. Corps of Engineers; State Department of Agriculture; soil, water and conservation agencies of Hawaii County; and the Economic Development Alliance of Hawaii.

Consultation with Other Agencies or Organizations

The following agencies or organizations were contacted to provide any studies, reports, and/or information pertaining to ocean currents, sand movement and/or beach nourishment/restoration in Hilo Bay, Hawaii.

- U.S. Army Corps of Engineers
- U.S. Department of Agriculture, Natural Resources Conservation Service
- State Department of Transportation
- State Department of Health*
- State Department of Agriculture*
- State Department of Business, Economic Development and Tourism
- DLNR Land Division, Office of Conservation and Coastal Lands* and
Division of Forestry and Wildlife
- Waiakea Soil and Water Conservation District
- Mauna Kea Soil and Water Conservation District
- Economic Development Alliance of Hawaii
- Hawaii Economic Development Board

Responses were received from the above agencies indicated with * and are attached in Appendix A.

Findings and Recommendations

DLNR is responsible to maintain safe passage for vessels' ingress and egress from the Wailoa Small Boat Harbor. DLNR acknowledges that the accumulation of sediment, which consists mainly of beach sand from the adjacent beach is deposited in the entrance channel and turning basin at the Wailoa Small Boat Harbor.

The accumulation of sediment in the entrance channel is a continuing problem, presumably enhanced by the construction of the 10,000 foot long Hilo Breakwater, which simplifies the sediment transport along the Hilo Bayfront to a predominantly one-way system from west to east. The Breakwater, which was completed in 1929, eliminates deepwater wave energy from the northeasterly direction, which is the predominant direction of trade-wind generated waves. The sand deposited at the entrance to the Wailoa River has no mechanism for return to the Hilo Bayfront shoreline. The source of the black sand and fine sediment is the Wailuku River. The Wailuku River drains a watershed area of approximately 250 square miles, with an average daily flow of 450 cubic feet per second (cfs).

The Wailoa Small Boat Harbor entrance channel was previously dredged in 1985 and 1995. DLNR will be conducting maintenance dredging at the Wailoa Small Boat Harbor in late 2006 and/or early 2007.

Further study is needed to investigate possible long-term solutions. Modeling of the ocean currents and sediment transport mechanisms within Hilo Bay should be performed to gain a better understanding of sediment movement along the Hilo Bayfront shoreline. The modeling and/or study may reveal improvements needed to mitigate beach erosion on the West side of the Hilo Bayfront shoreline and accumulation of sediment at the Wailoa Small Boat Harbor.

THE SENATE

TWENTY-THIRD LEGISLATURE,
2006

STATE OF HAWAII

S.C.R. NO. 130
S.D. 1

SENATE CONCURRENT RESOLUTION

REQUESTING THE DEPARTMENT OF LAND AND NATURAL RESOURCES TO RECOMMEND SOLUTIONS TO ABATE AND PREVENT THE ACCUMULATION OF SEDIMENT AT WAILOA SMALL BOAT HARBOR AND ALONG HILO BAYFRONT.

WHEREAS, there are five natural bodies of water that discharge into the Hilo Bay: Wailoa River, Wailuku River, Pukihae Stream, Pohakaunanaka Stream, and Maili Stream; and

WHEREAS, Wailoa Small Boat Harbor, located at the Wailoa River mouth, has economical importance for East Hawaii; and

WHEREAS, Wailoa Small Boat Harbor provides important access to the ocean, landing of fish, and commercial activities for the general public, tourists, power boaters, sail boaters, jet ski operators, canoes, and kayaks; and

WHEREAS, the Wailoa River discharges into Hilo Bay and is one of the major sources of sediment running into Hilo Bay; and

WHEREAS, the Department of Land and Natural Resources is responsible to maintain safe passage for vessels' ingress and egress from the Wailoa Small Boat Harbor to Hilo Bay; now, therefore,

BE IT RESOLVED by the Senate of the Twenty-third Legislature of the State of Hawaii, Regular Session of 2006, the House of Representatives concurring, that the Department of Land and Natural Resources is requested to study and recommend solutions to abate and prevent the accumulation of sediment at Wailoa Small Boat Harbor and along the Hilo bayfront; and

BE IT FURTHER RESOLVED that the Department of Land and Natural Resources is requested to consult with interested and resourceful parties, including but not limited to the Department of Transportation; Department of Health; United

States Department of Agriculture; United States Corp of Engineers; State Department of Agriculture; soil, water, and conservation agencies of Hawaii County; and the Economic Development Alliance of Hawaii; and

BE IT FURTHER RESOLVED that the Department of Land and Natural Resources report its findings and recommendations to the Legislature no later than twenty days prior to the convening of the Regular Session of 2007; and

BE IT FURTHER RESOLVED that certified copies of this Concurrent Resolution be transmitted to the Chairperson of the Board of Land and Natural Resources, Director of Transportation, Chairperson of the Board of Agriculture, Director of Health; United States Department of Agriculture, United States Corp of Engineers, Mayor of Hawaii County, and the Economic Development Alliance of Hawaii.

Report Title:

Wailoa River and Hilo Bay Sediment; DLNR Recommendations

APPENDIX A

LINDA LINGLE
Governor



5450
SANDRA LEE KUNIMOTO
Chairperson, Board of Agriculture

DUANE K. OKAMOTO
Deputy to the Chairperson

RECEIVED

State of Hawaii
DEPARTMENT OF AGRICULTURE
1428 South King Street
Honolulu, Hawaii 96814-2512
Phone: (808) 973-9600 Fax: (808) 973-9613

'06 AUG 17 AIO :23

August 16, 2006

DEPT. OF LAND
& NATURAL RESOURCES
STATE OF HAWAII

TO: Honorable Peter T. Young, Chairperson
Board of Land and Natural Resources

FROM: *for Duane K. Okamoto*
For Sandra Lee Kunimoto, Chairperson
Board of Agriculture

SUBJECT: Senate Concurrent Resolution No. 130, Senate Draft 1,
Requesting DLNR to Recommend Solutions to Abate and
Prevent the Accumulation of Sediment at Wailoa Small
Boat Harbor and along the Hilo Bayfront, Hilo, Hawaii

In response to your request of August 10, 2006, the Department of Agriculture does not have copies of any studies, reports, and/or information pertaining to ocean currents, sand movement and/or beach nourishment/restoration in Hilo Bay, Hawaii. Additionally, the department does not have information on any past, current or future activities regarding the sedimentation problem.

If you have any questions or need to discuss this further, you may contact Mr. Brian Kau, Administrator and Chief Engineer of the Agricultural Resource Management Division, at 973-9473.





STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

RECEIVED

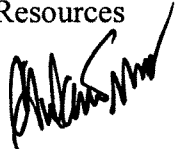
'06 SEP 18 10:37 In reply, please refer to:
EMD / CWB

Doc: 008716

September 6, 2006

DEPT. OF LAND
& NATURAL RESOURCES
STATE OF HAWAII

TO: The Honorable Peter T. Young, Chairperson
Department of Land and Natural Resources

FROM: Chiyome Leinaala Fukino, M.D. 
Director of Health

SUBJECT: **Senate Concurrent Resolution No. 130, Senate Draft 1 (SCR 130, SD 1),
Requesting DLNR to Recommend Solutions to Abate and Prevent the
Accumulation of Sediment at Wailoa Small Boat Harbor and Along the
Hilo Bayfront, Hilo, Hawaii**

Reference is made to your letter of August 10, 2006, relative to the subject Senate Concurrent Resolution on the accumulation of sediment at Wailoa Small Boat Harbor and along the Hilo Bayfront, Hilo, Hawaii.

Past Department of Health activities regarding the sedimentation problem include water quality monitoring in Hilo Bay and polluted runoff control projects aimed at reducing erosion and sedimentation along Waiakea Stream and from the former sugarcane lands.

Current activities include completing a Hilo Bay Watershed Background file and establishing a Hilo Bay Watershed Advisory Group; completing a Hilo Bay Watershed Based Plan; and establishing Total Maximum Daily Loads (TMDLs) for sediment in Waiakea and Alenaio Streams and completing sediment TMDL implementation plans.

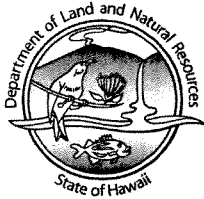
Future activities may include additional water quality monitoring; completing sediment TMDLs and implementation plans for the Wailoa estuary, Waiakea Stream, and Hilo Bay; and funding projects that reduce erosion and sedimentation throughout the Hilo Bay watershed.

All of these activities are on various schedules and any questions on their status should be addressed to the points of contact listed below.

Points of contact for these activities are Ms. Lawana Collier for the Polluted Runoff Control Program, Clean Water Branch, at 586-4309, and Mr. David Penn for the TMDL Program, Environmental Planning Office, at 586-4337.

06 SEP 19 PM 01:25 EMD/CWB

LINDA LINGLE
GOVERNOR OF HAWAII



06 SEP 22 AM 10:44 ENGINEERING



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

Office of Conservation and Coastal Lands

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

OCCL:DE

CORR: OA-07-65

MEMORANDUM:

September 21, 2006

TO: Eric. T Hirano, Chief Engineer
Engineering Division

FROM: Sam Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: **Senate Concurrent Resolution 130. Solution for Abatement and Prevention of Accumulation of Sediment of Wailoa Small Boat Harbor, Hilo.**

The Office of Conservation and Coastal Lands (OCCL) has received your August 10, 2006 letter requesting information and reports regarding ocean and sediment conditions in and around Hilo Bay in support of an effort to dredge the small boat harbor at Wailoa. The OCCL is supportive of the effort to conduct maintenance dredging to the small boat harbor at Wailoa and believes some of the beach-compatible sediment should be placed on the adjoining beach as part of a beach restoration effort along the bay front.

The OCCL has no documentation or research reports for Hilo Bay that might be useful for the subject project. The Army Corps of Engineers Honolulu Division may have additional reference material that might be of use to the project. In addition there may be local environmental groups that have some knowledge of the local processes that may be useful in evaluating alternative designs.

While the OCCL has no hard data available for the project site our staff can offer our services in alternative structure designs and beach restoration efforts as well as offer assistance in the permit

requirements for small-scale beach nourishment. As our staff previously discussed with your engineering staff and consultant recently, we believe a viable long-term solution may be to transport the dredged sediment to the northern end of Hilo Bay in an ongoing beach nourishment effort. This may be enhanced by the use of small sand bag groins used to retain the placed sand for a longer residence time. This approach would still require regular scheduled maintenance but the groins may allow for longer intervals between required maintenance dredging. The terminal groin adjoining the project site also appears to be at capacity and should either be extended or the beach sediment filling it should be backpassed back to the north end of Hilo Bay, which appears to the origin.

Should you have any questions, please feel free to contact Dolan Eversole at 587-0321 or Sam Lemmo at 587-0377, should you have any questions on this matter or are in need of further assistance.